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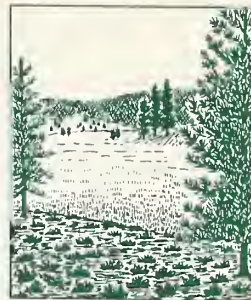
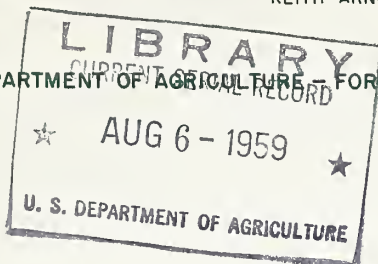




# FOREST RESEARCH NOTES

CALIFORNIA FOREST AND RANGE EXPERIMENT STATION  
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U.S. DEPARTMENT OF AGRICULTURE FOREST SERVICE



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## CALIFORNIA CONE CROP--1957

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California forest trees are expected to produce a good cone crop in only a few localities this year. Generally the crop is rated as none or very light. A medium or heavy crop is indicated in some seed zones; however, even in these zones the crop will vary greatly in different parts.

These are the main conclusions from a study of the cone-crop reports sent to the California Forest and Range Experiment Station by members of the California Division of Forestry, the California Region of the U. S. Forest Service, and the Southern California Edison Company.

The reports were generally based on ocular estimates in which the crop was rated as none, very light, light, medium, or heavy, according to the cone crop classification used in Oregon. <sup>1/</sup> In this classification the cone crop ratings are:

1. None--no cones on any trees or few cones on occasional trees.
2. Very light--few cones on 25 percent of the trees, or few cones on 25 percent of the trees and many cones on occasional trees.
3. Light--few cones on 75 percent of the trees, or many cones on some trees and few cones on 75 percent of the trees.
4. Medium--some cones on all trees, or many cones on less than 75 percent of the trees.
5. Heavy--many cones on 75 percent of the trees and some cones on all trees, or many cones on all trees.

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<sup>1/</sup> Engstrom, W. H. Oregon cone crop, 1954. Oregon State Board of Forestry. Res. Note 16, 7 pp., 1954.

Although these ratings are subjective, they provide valuable information for those planning to collect seed this fall.

As an aid to seed collectors, the crop reports have been segregated according to the forest tree seed collection zones described by Fowells. <sup>2/</sup> This grouping (table 1), showed that the most promising localities for collecting seed of major commercial conifers--those with medium to heavy cone crops--were as follows:

	<u>Seed Zone</u>
Incense-cedar	III and IX
Douglas-fir	III and X
Red fir	II, III, V, VII, VIII, and XI
White fir	I, V, and VIII
Jeffrey pine	I, V, IX, and X
Ponderosa pine	I and IX
Sugar pine	IV and V

A map of the collection zones is appended to this note, but since the seed crop is spotty and varies widely in most zones, it is also advisable to consult field offices of the California Division of Forestry or the U. S. Forest Service to determine best areas to collect cones.

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<sup>2/</sup> Fowells, H. A. Forest tree seed collection zones in California. Calif. Forest and Range Expt. Sta. Res. Note 51, 5 pp., illus. 1946.

Table 1.--Summary of cone crops by species and seed zone,  
California, 1957

Species	: Seed collection : : zone or county :	Cone crop <u>1/</u>
<u>CEDAR:</u>		
Incense-cedar ( <u>Libocedrus decurrens</u> )	I, VIII, X II, VII IV, V III, IX	None None to very light None to light None to medium
<u>DOUGLAS-FIR:</u>		
Bigcone Douglas-fir ( <u>Pseudotsuga macrocarpa</u> )	IX	Very light to light
Douglas-fir ( <u>P. menziesii</u> )	IV, VIII, XII, Lake and Napa I, II, XIII V, XI III, X	None None to very light None to light None to medium
<u>FIR:</u>		
Bristlecone fir ( <u>Abies bracteata</u> )	XIII	Very light
California red fir ( <u>A. magnifica</u> )	I, X II, III, V, VII, XI VIII	None to light None to medium None to heavy
Lowland white fir ( <u>A. grandis</u> )	XI, XII, XIII	None
White fir ( <u>A. concolor</u> )	VII, IX II, III, IV, X, XI I, V, VIII	None to very light None to light None to medium
<u>PINE:</u>		
Bishop pine ( <u>Pinus muricata</u> )	X, XII XIII	Very light Light to medium
Coulter pine ( <u>P. coulteri</u> )	XIII IX	None to medium Very light to medium

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	: Seed collection :	
Species	: zone or county :	Cone crop <u>1/</u>

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PINE: (continued)

Jeffrey pine ( <u>P. jeffreyi</u> )	XI II, VIII III, IV, VII, XIII I, V, IX, X	None None to very light  None to light None to medium
Knobcone pine ( <u>P. attenuata</u> )	IX, X, XI, XIII I, III	Light to medium Medium to heavy
Lodgepole pine ( <u>P. contorta</u> )	V XII I, VI, VII XIII	None None to very light Light to medium Medium
Monterey pine ( <u>P. radiata</u> )	XIII	Heavy
Ponderosa pine ( <u>P. ponderosa</u> )	XI, XIII, Lake and Napa VIII, X II, III, IV, V I, IX	None None to very light None to light None to medium
Sugar pine ( <u>P. lambertiana</u> )	VIII, IX, XI, XIII, Lake, Napa II I, III, VII, X IV V	None None to very light None to light None to medium None to heavy
Western white pine ( <u>P. monticola</u> )	I, VII, VIII	None to medium

SEQUOIA:

Giant sequoia ( <u>Sequoia gigantea</u> )	IV V	Very light Very light to medium
Redwood ( <u>S. sempervirens</u> )	XII XIII	Light Very light to medium

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1/ Reported by technicians of the California Division of Forestry, the California Region of the U. S. Forest Service, the California Forest and Range Experiment Station, and the Southern California Edison Company.





